

IGNEOUS ROCKS

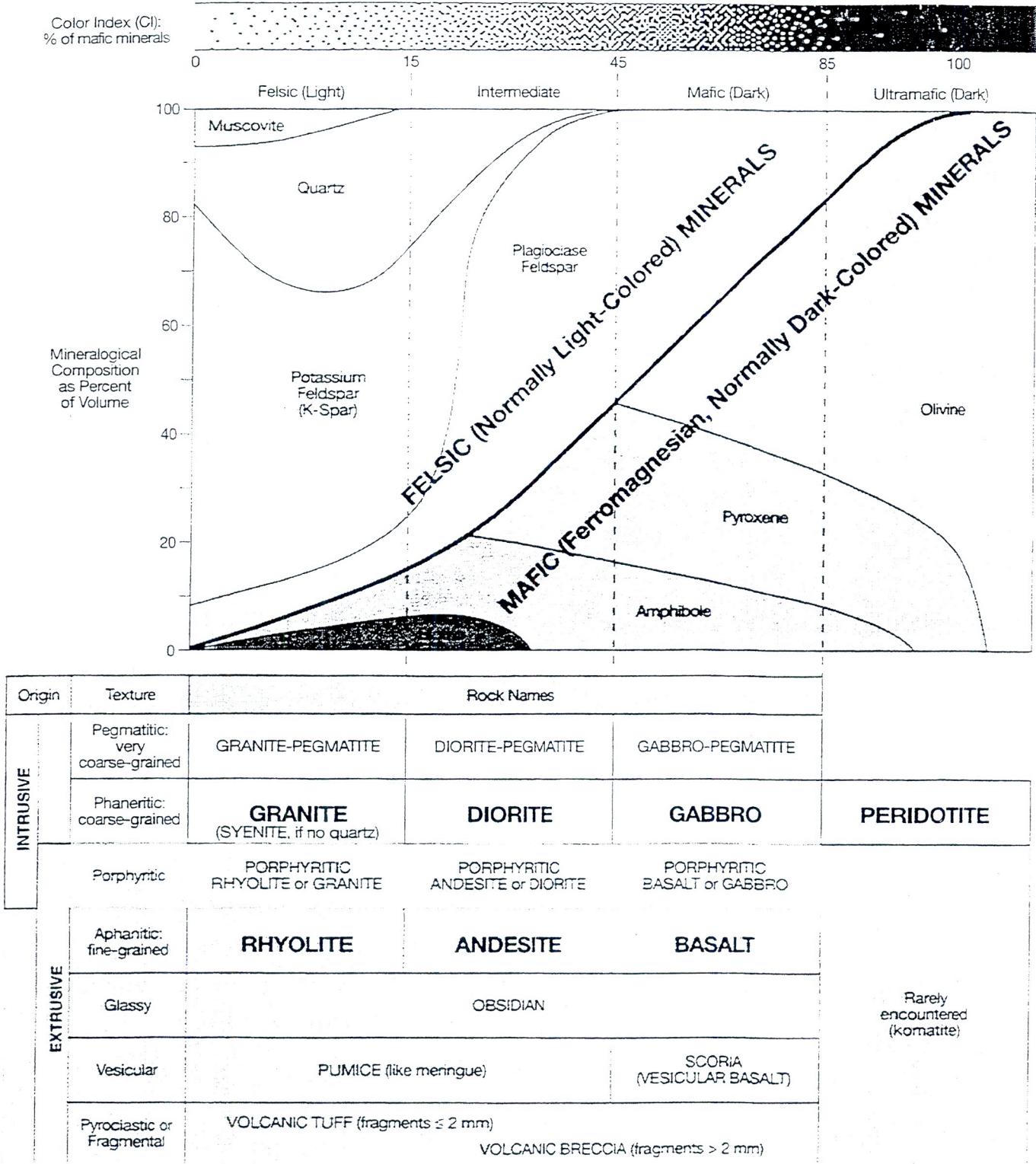


FIGURE 5.3 Igneous rocks classification chart. Classification of igneous rocks is based upon three qualities: texture, color index (% of ferromagnesian, or mafic minerals), and mineralogical composition (the names and relative abundances of eight main rock-forming minerals). Also refer to Figure 5.2 and the examples of classified igneous rocks in Figures 5.4–5.16.

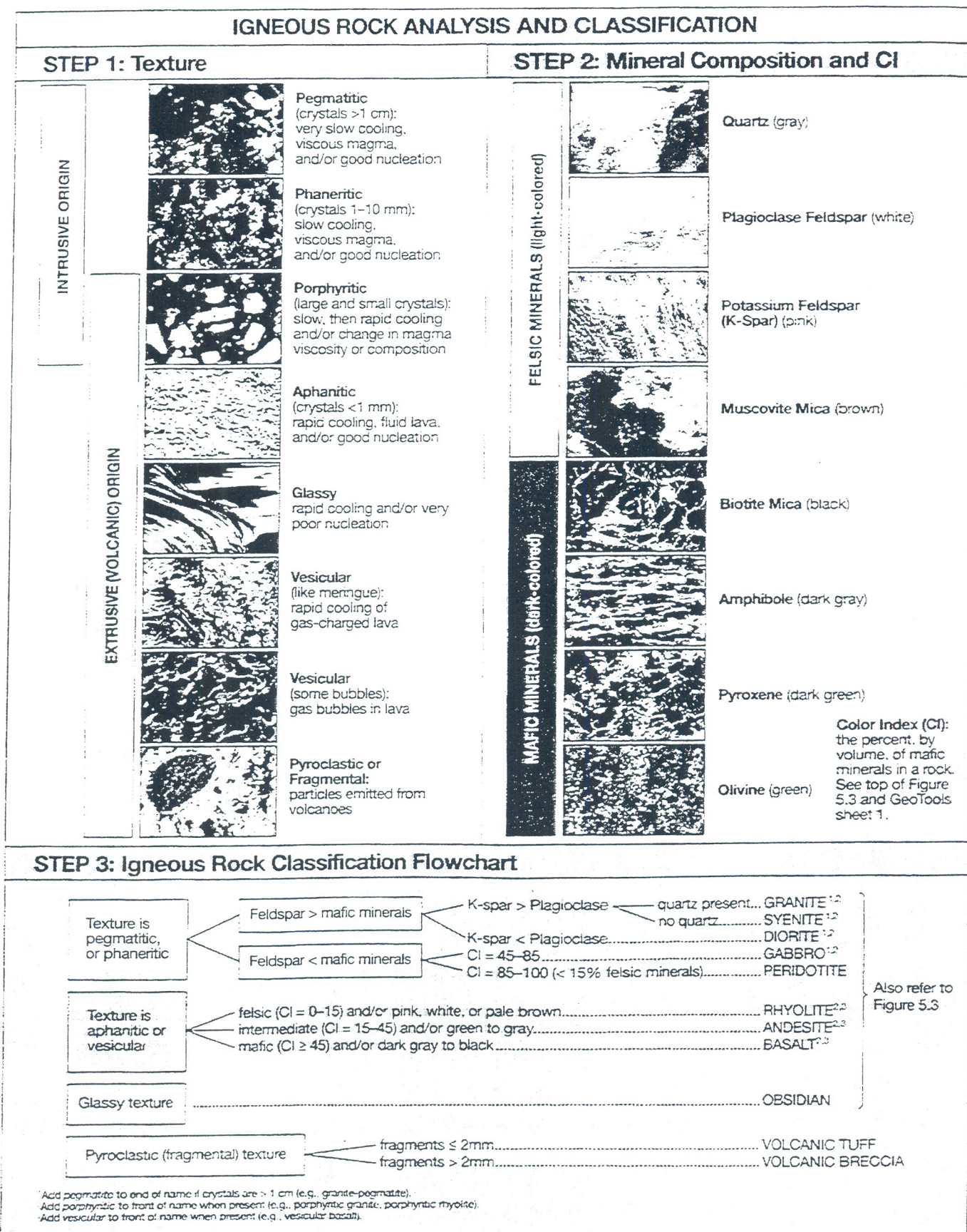


FIGURE 5.2 Igneous rock analysis and classification. **Step 1**—Identify the texture(s) of the rock. **Step 2**—Identify the mineral composition of the rock by identifying the main rock-forming minerals that comprise it, estimating the relative abundances of each mineral (using a Visual Estimation of Percent chart from GeoTools Template 1), and estimating the rock's color index. **Step 3**—Use the Igneous Rock Classification Flowchart to name the rock. Start on the left side of the flowchart.

FIGURE 5.22 Igneous Rocks Worksheet.

IGNEOUS ROCKS WORKSHEET					
Sample Number or Letter	Texture(s) Present (Figure 5.2)	Minerals Present and Their % Abundance (Figure 5.2)	Color Index (Figure 5.3)	Rock Name from Figure 5.2 or 5.3	How did the rock form?

FIGURE 6.10 Sedimentary Rocks Worksheet.

SEDIMENTARY ROCKS WORKSHEET				
Sample Number or Letter	Composition (Figures 6.2 and 6.8)	Textural and Other Distinctive Properties (Figure 6.1 and 6.8)	Rock Name (Figure 6.8)	How did the rock form? (See Figures 6.3-6.7)
Fig. 6.9 SEE INSTRUCTIONS	Clastic rock composed mostly of orange feldspar and about 10% quartz grains	Mostly gravel-sized, angular, poorly sorted grains	Arkose sandstone	Preexisting rock (probably granite) was weathered. Grains were not rounded or sorted much, so they were not transported very far from their source. Grains were mixed with some green silt, deposited, and hardened (compaction?) into rock. CEMENTATION BY CHEMICAL CHALK
A				
B				
C				
D				
E				